



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/828,404

04/19/2004

Steven J. Holden

02-126-US2

4525

34704 7590 01/30/2007  
BACHMAN & LAPOINTE, P.C.  
900 CHAPEL STREET  
SUITE 1201  
NEW HAVEN, CT 06510

EXAMINER

JIMENEZ, MARC QUEMUEL

ART UNIT

PAPER NUMBER

3726

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/30/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/828,404

Applicant(s)

HOLDEN, STEVEN J.

Examiner

Marc Jimenez

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9-12 is/are rejected.
- 7) ☒ Claim(s) 4-8, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/22/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Species A, Subspecies II in the reply filed on 12-18-06 is acknowledged. The traversal is on the ground(s) that no separate search classification requirement has been identified when the independent claims were restricted to distinct species. This is not found persuasive because there is no requirement to identify a separate search classification when restricting between species (refer to the restriction requirement and the MPEP citations therein for restriction between species).

The requirement is still deemed proper and is therefore made FINAL.

### ***Specification***

2. The title and abstract of the invention is not descriptive. A new title and abstract are required that is clearly indicative of the invention to which the claims are directed (method claims).

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description (page 8, paragraph [0022] in referring to figure 2): 200, 222 and 224. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing

on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claim 9** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites "the spacer elements" which lacks proper antecedent basis because according to claim 1, there could be only one spacer element.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1-3 and 10** are rejected as rejected under 35 U.S.C. 102(e) as being anticipated by Moroi et al. (US6783338).

Moroi et al. teach in figure 2: a rotor **120** having a working portion **120a** having a first end face **120h**, a housing assembly **110** carrying the rotor **120** for rotation about rotor axis (see figure 1) and having a first housing element **110b** having a first surface (face opposite **120h**) facing the first end face **120h**, the method comprising:

positioning one or more spacer elements **110e** from the first housing element **110b**, machining the one or more spacer elements (col. 7, lines 49-50), and applying a coating **R1** over the first surface (face opposite **120h**) around the one or more spacer elements **113**. It is a matter orientation how the assembly is held to consider that the coating as “over” the first surface **110e**. For example, if the element **120a** is on top, the portion of the coating **R1** would be “over” the first surface **110e**.

8. **Claims 1 and 9** are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shimizu et al. (US4225295).

Shimizu et al. a rotor **5** having a working portion having a first end face **5a**, a housing assembly **2** carrying the rotor for rotation about a rotor axis and having a first housing element **3** having a first surface facing the first end face **5a**, the method comprising: positioning one or more spacer elements **7** from the first housing element **3**, machining the one or more spacer

elements (it is inherent that the spacer elements **7** of Shimizu et al. are machined to create the spacer element shape), and applying a coating **12** over the first surface around the one or more spacer elements **7**. It is noted that claim 1 is an “open-ended” claim, wherein the order of steps is not specifically claimed. For example, the machining step could be performed before the positioning step in claim 1.

It is considered inherent that the spacer elements are machined. Alternatively, official notice is taken that it was well known to a person of ordinary skill in the art, at the time of the invention, to have machined spacer elements such as the seals **7** taught by Shimizu et al., in order to create a seal having the desired size.

The spacer elements **7** is considered “press fit” in the opening **5c**.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Moroi et al. or Shimizu et al.

Neither Moroi et al. or Shimizu et al. specifically teach removing old spacer elements.

However, official notice is taken that the concept of removing an old part and repairing it

with a new one was well known to a person of ordinary skill in the art, at the time of the invention, in order to replace a defective part.

11. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. in view of Applicant's Admitted Prior Art (hereinafter APA).

Shimizu et al. do not specifically disclose that the rotor is a screw type male rotor and a female rotor.

APA teaches that screw type compressors are used in refrigeration applications.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have made the rotor a screw type compressor, in light of the teachings of APA, in order to use the compressor for refrigeration applications.

***Allowable Subject Matter***

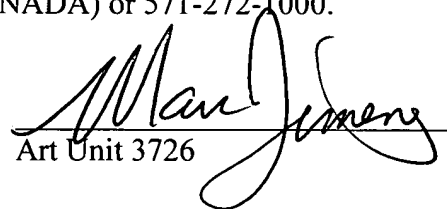
12. **Claims 4-8, 19 and 20** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is (571) 272-4530. The examiner can normally be reached on Monday-Thursday.

Art Unit: 3726

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Art Unit 3726

MJ  
1-12-07

**MARC JIMENEZ  
PRIMARY EXAMINER**